

Genetics

Learning Set 3.2 Reading Guide Part 1

How do animal and plant populations change because of the environment?



Read the first three paragraphs on page 103 and answer the following question.

- ∞ In your own words what is **adaptation**?
- ∞ How do you think organisms have become so well adapted to their environment?

Look at the polar bear at the top of the page and write down four adaptations the polar bears had to acquire to live in the harsh cold weather. Think of what they need to survive the frigid weather.

- 1.
- 2.
- 3.
- 4.

Kinds of Adaptations:

Read bottom of page 103: How are structural and behavioral adaptations similar and different? Place the information below.

Structural Adaptations

Behavioral Adaptations:

Below write how the snowy owl has used structural and behavioral adaptations

Read Butterfly Adaptations on page 104.



1. The Monarch butterfly has the structural adaptation of being brightly colored. Why might this be an advantage for this butterfly?
2. Compare the appearance of the Monarch and Viceroy butterflies. How would the Viceroy's coloration be an advantage for its survival?
3. Even though it is brightly colored and bad tasting, the Monarch butterfly does get eaten sometimes. Its bright colors and bitter taste do not protect it every time. Why do you think this is so?

Stop and Think



1. What happens when some individuals in a population have traits that make them better adapted to the environment? Give an example to support your answer.
2. Using your investigation and reading experiences, describes how a population, as a whole, becomes better adapted to the environment over time.